



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/822,647

03/30/2001

Kazushi Wada

09792909-4799

7645

26263

7590

11/18/2003

SONNENSCHN NATH & ROSENTHAL LLP
P.O. BOX 061080
WACKER DRIVE STATION, SEARS TOWER
CHICAGO, IL 60606-1080

EXAMINER

SOWARD, IDA M

ART UNIT

PAPER NUMBER

2822

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,647

Applicant(s)

WADA, KAZUSHI

Examiner

Ida M Soward

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to Applicant's remarks filed September 3, 2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Figure 4 in view of Yamashita et al. (5,463,232).

Admitted Prior Art Figure 4 teaches a solid state imaging device having an output portion **113** connected to an output end of a horizontal transfer register **112**, the output portion having a gate structure **142** including an oxide film **121** and a nitride film **122**, the solid-state imaging device comprising: upper layer films **151** & **161** allowing light to pass through; a first metal made shield film **155** formed in such a manner as to cover a region of the gate structure including an oxide film being disposed above a transfer portion of the solid state imaging device, wherein a metal made film **145** has an opening at a position directly over a floating diffusion region **143** of the solid state imaging device; a film **161** capable of absorbing ultraviolet rays, the organic film being formed in such a manner as to cover a region of the gate structure including an oxide film and a nitride film, excluding a transfer portion of the solid state imaging device; and a wavelength of 400 nm or less. However, Admitted Prior Art Figure 4 fails to teach a second metal made shield film. Yamashita et al. teach a second **272** metal-made shield film (Figure 22, col. 13, lines 3-12). Since Admitted Prior Art Figure 4 and Yamashita et

Art Unit: 2822

al. are from the same field of endeavor (solid-state imaging devices), the purpose disclosed by Yamashita et al. would have been recognized in the pertinent art of Admitted Prior Art Figure 4. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Admitted Prior Art Figure 4 by incorporating the second metal made shield of Yamashita et al. to enhance image sense performance (col. 14, lines 9-25).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art Figure 4 and Yamashita et al. (5,463,232) as applied to claims 1-2 above, and further in view of Haga et al. (5,140,397).

Admitted Prior Art Figure 4 and Yamashita et al. teach all mentioned in the rejection above. However, Admitted Prior Art Figure 4 and Yamashita et al. fail to teach an organic film capable of absorbing rays. Haga et al. teach an organic film 11 capable of absorbing rays (Figure 3, col. 6, lines 1-19). Since Admitted Prior Art Figure 4, Yamashita et al. and Haga et al. are from the same field of endeavor (solid-state imaging devices), the purpose disclosed by Haga et al. would have been recognized in the pertinent art of Admitted Prior Art Figure 4 and Yamashita et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the solid-state imaging device of Admitted Prior Art Figure 4 and the second metal made shield of Yamashita et al. by incorporating the organic film of Haga et al. to lower manufacturing costs (col. 3, lines 52-55).

Response to Arguments

Applicant's arguments filed 09-03-03 have been fully considered but they are not persuasive. Admitted Prior Figure 4 teaches the output portion, oxide film and nitride film. Yamashita et al. is relied upon for the teaching of a second metal made shield film with the benefit of enhancing the image sense performance.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M. Soward whose telephone number is (703) 305-

Art Unit: 2822

3308. The examiner can normally be reached on Monday through Thursday, from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian, can be reached at (703) 308-4905. The Group fax number is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

ims

November 16, 2003


AMIR ZARABIAN
SUPERVISOR/PATENT EXAMINER
TECHNOLOGY CENTER 2800